STATE OF GEORGIA TIER 2 TMDL IMPLEMENTATION PLAN REVISION 1

Salacoa Creek Coosa River Basin April 28, 2006

Pickens, Bartow, Cherokee and Gordon Counties, Cities of Ranger and Fairmount

I. INTRODUCTION

Total Maximum Daily Load (TMDL) Implementation Plans are platforms for evaluating and tracking water quality protection and restoration. These plans have been designed to accommodate continual updates and revisions as new conditions and information warrant. In addition, field verification of watershed characteristics and listing data has been built into the preparation of the plans. The overall goal of the plans is to define a set of actions that will help achieve water quality standards in the state of Georgia.

This implementation plan addresses the general characteristics of the watershed, the sources of pollution, stakeholders and public involvement, and education/outreach activities. In addition, the plan describes regulatory and voluntary practices/control actions (management measures) to reduce pollutants, milestone schedules to show the development of the management measures (measurable milestones), and a monitoring plan to determine the efficiency of the management measures.

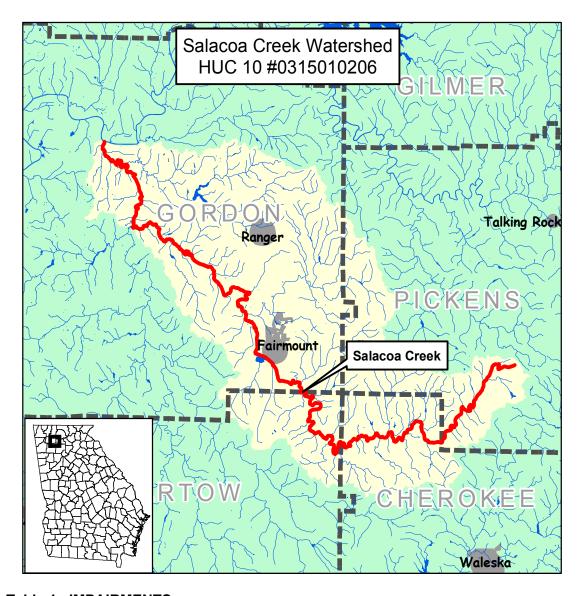


Table 1. IMPAIRMENTS

IMPAIRED STREAM SEGMENT	IMPAIRED SEGMENT LOCATION	IMPAIRMENT	TMDL ID
Salacoa Creek	Pickens and Gordon Counties (EPA)	Biota (Sediment) / Habitat	CSA0000030

II. GENERAL INFORMATION ABOUT THE WATERSHED

Write a narrative describing the watershed, HUC 10 #0315010206. Include an updated overview of watershed characteristics. Identify new conditions and verify or correct information in the TMDL document using the most current data. Include the size and location of the watershed, political jurisdictions, and physical features which could influence water quality. Describe the source and date of the latest land cover/use for the watershed. Describe and quantify major land uses and activities which could influence water quality. See the instructions for more information on what to include.

Salacoa Creek, listed for **Biota (Sediment)/ Habitat**, has its source in the high elevations in Pickens County. It flows southwest into Cherokee County then due west into Bartow County. Once in Bartow County, it flows northwest up into Gordon County and within the City of Fairmount, ultimately draining into the Coosawattee River about 5 miles northwest of the City of Ranger. Salacoa Creek is the largest tributary to the Coosawattee (Coosa River Basin Plan). The Coosawattee and Conasauga Rivers converge ultimately to form the Oostanaula River. Salacoa Creek drains an area of 241 square miles west of Calhoun.

The upper reaches of the watershed in Pickens and Bartow counties are characterized by steep slopes. Elevation drops from 1038ft at Ramsaeur Mountain near the City of Fairmount to a roughly 700 ft. elevation in the valley.

Once crossing the county line into Gordon County there is a wider floodplain across which the creek traverses. The low, rounded hills typical of this Southern Shale Ecoregion (67g) comprise the lower reaches as the creek winds its way to the Coosawattee. The Salacoa Valley runs roughly north to south down the center of the watershed.

Sandy and rocky soils seen in this area may erode more easily than clay in other areas.

The Salacoa is stocked with trout in Cherokee County twice each fishing season prior to July 4th (GADNR, 2006).

The majority of the watershed is located in the Chattahoochee National Forest, which covers the western area of Gordon County and the eastern part of Pickens County.

The Salacoa Creek Park is a 343-acre park with a 126-acre lake for recreation and fishing, located off Highway 156 in the northern part of the watershed. As well there is a private hunting range on Johnson Mountain Road owned by the Etowah Sportsmen's Club.

Field survey results indicated that the watershed's primary use was pasture and new residential development. At Highway 53 near Fairmount, stream was clear with good flow and forest as buffer. Sand bars and bank undercutting or failure were seen at various places. Pastures were interspersed with densely wooded forest especially on Johnson Mountain Road, hunting lands owned by *Etowah Sportsmen's Club*. Livestock had access to stream in some places but were fenced out at other places. Sandy soils and attempts to stabilize banks using riprap were seen. At Soaring Hawk in Pickens County, much residential development seen in area.

Land use: The watershed contains 63,681 acres and a drainage area of 90 square miles. The majority is still forested at 90% or 57,496 acres; agriculture and pasture form 9%, or 5,756 acres; urban, commercial and open water each form less than 1% of the total land use (EPA, 2004). The

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data on land use are taken from EPA publication *Total Maximum Daily Load (TMDL) in Tallapoosa and Coosa River Basins* (2004). This is the most recent land use data available for this watershed. New land use data will be collected for the 2007 Bartow and Gordon Counties Comprehensive Plans and can be used as an update to this plan. Field surveys as well as stakeholder input were gathered to update watershed land usage.

The primary form of livestock is poultry, followed by some cattle and horses. Countywide, poultry is predominant, and Gordon County is ranked 9th in the state for broiler production. The total poultry industry in Gordon County is worth approximately 161.4 million dollars (Moraitakis, 2005). The survey indicated that land use in the watershed was primarily pasture and forest. In the City of Fairmount there is a large residential development but upstream little development is occurring. The majority of housing development in Gordon County is occurring west of this watershed. Most of this watershed contains single-family homes on large lots.

Municipalities and counties in the watershed include Pickens, Bartow, Cherokee and Gordon Counties, and the Cities of Ranger and Fairmount.

Sampling sites in the watershed included USGS sampling at Knight Bottom Road; in 2001 and 2005 the EPD sampled at County Road 29, Love Bridge Road, near Redbud. CVRDC Field Survey sites in 2005 included nine sites downstream of Fairmount and eight upstream of Fairmount.

Relevant Watershed Planning and Management Activities

Erosion and Sedimentation Program: Cherokee, Bartow, Gordon and Pickens Counties are Local Issuing Authorities for E & S permitting of land-disturbing activities which are required to submit an NOI under the NPDES General Permit for Construction Activity; the Cities of Fairmount and Ranger have E & S permits issued by the EPD Mountain District.

Gordon County revised its E & S ordinance in 2001. It meets current Georgia E & S requirements and applies to land disturbing activities on one acre of land or greater or those within 200 feet of the bank of any state water. It is administered by the Gordon County Code Enforcement Officer. Agriculture and forestry are excluded. The E & S Ordinance establishes a twenty-five foot buffer along all waters of the state and a fifty-foot buffer along trout streams; it establishes practices to protect buffers along these streams. It requires stormwater management structures be installed.

Bartow County revised its E & S Control ordinance in 2002. It meets current Georgia E & S requirements. This ordinance applies to land disturbing activities on one acre of land or more. It is administered by the Bartow County Engineer through the Planning and Zoning Department. It is currently being reviewed and updated to include recommendations developed by a regional habitat conservation plan, the Etowah Habitat Conservation Plan is a joint effort of municipalities, water authorities, developers, industry, the University of Georgia, Kennesaw State University, Georgia DNR, the US Fish and Wildlife Service, and others in the Etowah River watershed to protect threatened and endangered species of darter by developing a regional conservation plan. The plan allows included jurisdictions to be in compliance with the Federal Endangered Species Act and to obtain an Incidental Take Permit from the US Fish and Wildlife Service for development activities. Additionally the County is currently reviewing and updating all regulations and processes in its development code.

According to the Bartow County Watershed Assessment and Protection Plan, there are six standard operating procedures required of local governments for erosion and sediment control. These include a bonding program for workers, a requirement for semi-monthly reporting, weekly county inspections at each site, addition of erosion and sedimentation to the building inspectors' checklist, two required pre-construction meetings

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with site planner and crew, and lastly, the designation of an on-call erosion and sedimentation expert for the project. Some of these requirements may be revised in light of the recent erosion and sedimentation certification requirements.

Cherokee County revised its E & S ordinance in 2004. It meets current Georgia E & S requirements and applies to land disturbing activities on one acre of land or greater or those within 200 feet of the bank of any state water. It is administered by the Cherokee County Engineer. Agriculture and forestry are excluded. The Cherokee County E & S Ordinance (Ordinance 2004-O-002, Section 26) establishes a twenty-five foot buffer along all waters of the state and a fifty-foot buffer along trout streams (variances to 25 feet can be granted along secondary trout streams); it establishes best management practices to protect buffers along these streams.

House Bill 285 requires state certification in E & S Control for anyone involved in the following activities: land development, design, review, permitting, construction, monitoring, inspection, or any land-disturbing activity in Georgia (Georgia Soil and Water Conservation Commission, 2005). This certification is done through training by the Georgia Soil and Water Conservation Commission in consultation with Georgia Environmental Protection Division and the Stakeholder Advisory Board. The GSWCC also has updated requirements for E&S plans to be submitted with each project. Certification requirements apply to all such persons in Pickens, Bartow, Cherokee and Gordon Counties. Certification is offered through the Limestone Valley Resource Conservation and Development Council, the University of Georgia, and through the Rolling Hills RC & D for Bartow County. Bartow County has held one class for Level 1A certification in December 2005; other certification level training classes are planned.

Department of Natural Resources Best Management Practices

The Department of Natural Resources, Wildlife Management Division provides outreach to landowners on prevention of soil erosion and sedimentation from land-disturbing activities contributing to habitat destruction, advises landowners of best management practices and habitat development for increased wildlife on their property, and encourages landowners to implement conservation practices on their lands through the NRCS. The DNR also stocks the Salacoa with trout four times a year, once in March and once before each summer holiday, in Cherokee County.

Georgia Forestry Commission Best Management Practices

The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill. Ongoing Georgia Forestry Commission activities include the following programs.

- Federal Clean Water Act Section 404: GFC received referrals from EPA for compliance determinations in situations involving forestry. It
 requires normal ongoing agricultural and silvicultural practice to adhere to BMPs and 15 baseline provisions for road construction and
 maintenance in and across waters of the US including lakes, rivers, perennial and intermittent streams, wetlands, sloughs in order to qualify
 for the exemption from the permitting process.
- Georgia's Best Management Practices: A GFC program to inform landowners, foresters, timber buyers, loggers, site preparation and reforestation contractors, and others involved with silvicultural operations about common-sense, economical, effective practices to minimize nonpoint source and thermal pollution. GFC encourages and monitors compliance and conducts a complaint resolution program.
- Georgia Forestry Commission Monthly BMP Assurance Examination: In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or

- by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.
- Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture). Although overseen by the EPA/ US Army Corps of Engineers, cases are normally referred to GFC to make the initial determination. It identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.

Metropolitan North Georgia Water Planning District Model Ordinances

Bartow and Cherokee Counties are members of the Metropolitan North Georgia Water Planning District, which was created by the Georgia General Assembly to establish policy, create plans and promote intergovernmental coordination of all water issues in the area from a regional perspective. Both counties are included in the Metropolitan Water Planning District's Watershed Management Plan, which includes six protection strategy areas:

- Point Source Management
- Storm Water Management
- Total Maximum Daily Loads (TMDLs)
- Watershed Improvement
- Intergovernmental Coordination
- Long-term Monitoring

The MNGWPD Watershed Management Plan required each member to adopt these six model ordinances:

- Ordinance for Post-Development Stormwater Management for New Development and Redevelopment
- Floodplain Management/Flood Damage Prevention Ordinance (in review)
- Conservation Subdivision/Open Space Development Ordinance
- Illicit Discharge and Illegal Connection Ordinance
- Litter Control Ordinance
- Stream Buffer Ordinance

Cherokee County has adopted these model stormwater ordinances in 2005. Bartow County has adopted either the district model ordinances, or had an equivalent ordinance in existence, in 2005. The County has adopted the model stream buffer ordinance wholesale and the litter ordinance is equivalent to that of the model ordinance.

Bartow has adopted five of six Model Storm Water Management Ordinances that address Post Development Storm Water Management for New Development and Redevelopment, Conservation Subdivision/ Open Space Development, Illicit Discharge and Illegal Connection, Litter Control, and Stream Buffer Protection as required by Georgia EPD in MS4 Phase II Permit Renewals. The District Plan also addresses municipal good housekeeping practices to control non-point source pollution; improved enforcement of erosion and sedimentation control; storm water management for transportation projects; and education and public awareness activities. Bartow County has not adopted the District's Floodplain Management/Flood Damage Prevention Ordinance, as it is being reviewed by the District. Bartow's current flood plain ordinance meets national flood insurance requirements and was revised as of 2000.

Existing floodplain management ordinances will be revised as counties participate in updating their flood hazard regions through the National Flood Plain Insurance Program/ Georgia DNR Floodplain Management Office Flood Map Modernization Program.

Bartow County Board of Tax Assessors is considering a proposed tax relief program for property owners who place conservation easements on all or part of their properties, especially for greenspace on timberland.

Bartow County Municipal Ordinances

The Bartow County Zoning Ordinances require a stream buffer of a minimum of fifty feet on each side. Access is allowed to the stream for livestock watering but must be constructed with Best Management Practices (BMPs) to minimize pollution and sedimentation to the stream.

Bartow County Board of Tax Assessors is considering implementation of a tax relief program for property owners who place conservation easements on all or part of their properties, especially for greenspace on timberland.

Bartow County has not adopted the District's Floodplain Management/Flood Damage Prevention Ordinance, as it is being reviewed by the District. Bartow's current flood plain ordinance meets national flood insurance requirements and was revised as of 2000.

Additionally, existing floodplain management ordinances will be revised as counties participate in updating their flood hazard regions through the National Flood Plain Insurance Program/ Georgia DNR Floodplain Management Office Flood Map Modernization Program.

Bartow County Watershed Assessment and Protection Plan

Between 1990 and 2000 Bartow County experienced a 36% growth rate; subsequently the County began the Bartow County Growth Management Plan, completed in 1997, which was based on input from local residents and economic development experts and which suggested specific growth management strategies including expansion of water and wastewater treatment operations.

In 2000 Bartow County contracted with Kennesaw State University to conduct a watershed assessment as part of the watershed assessment and protection plan development requirements for existing and new wastewater treatment plants under NPDES. This assessment indicated that overall, streams in Bartow County were in "moderately good condition relative to other systems in the Atlanta metropolitan area (KSU, 2001)." However, the report pointed out that fecal waste among other impairments was present in individual streams including Lower Pumpkinvine Creek, Lower Stamp Creek, Salacoa Creek, Lower Euharlee Creek, Upper Two Run Creek, Upper Pettit Creek, Cedar Creek, Pine Log Creek, and Richland Creek (KSU, 2001). Some of these creeks were placed on the 2004 303 (d) impaired streams list for fecal coliform bacteria. Pettit Creek (Upper and Lower) was tested for fecal coliform and found to be in keeping with state water quality standards. Enterococci was measured as well. Fecal coliform was not elevated during wet events compared to dry events but enterococci was elevated in wet events, suggesting that runoff or resuspension of bacteria previously in streambed sediment had occurred. Study suggested that sources were mostly likely a combination of bird, human, and vegetation.

Bartow County is considering expansion of the Bartow County Wastewater Treatment Plant in 2006-2007 and has conducted a county watershed assessment and developed the Bartow County Watershed Protection Plan as part of its expansion process to meet NPDES permitting standards. The watershed assessment results relate directly to the TMDL initiative.

Bartow County's Watershed Assessment and Protection Plan strategies were developed according to the Metropolitan North Georgia Water Planning District (District) Water Management Plan of 2003. The protection plan strategies include point source management, storm water management, the Total Maximum Daily Load initiative, watershed improvements, intergovernmental coordination and long-term monitoring. These strategies are covered as part of the District's Water Management Plan as well as the TMDL implementation plans; the NPDES Phase II for MS4's also requires implementation of the majority of these strategies.

Stormwater Management

Bartow County has an NPDES-permitted Small Municipal Separate Storm Sewer System (MS4) and is subject to the Phase II Stormwater Rules. These extended Phase II permitting rules include six parameters that deal with water quality including 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Runoff Control; 5. Post-Construction Runoff Control; 6. Pollution Prevention and Good Housekeeping. Bartow County's NOI for its NPDES Phase II Stormwater Permit for a small MS4 was approved in 2005.

Components of Bartow County's NPDES Phase II Stormwater Management Plan involving Public Education and Outreach include the following:

- School System Stormwater Presentations provided yearly to teachers, students in county and city elementary and middle grades by the Keep Bartow Beautiful Coordinator;
- E & S Training Workshop on appropriate measures to control runoff and pollution provided biannually to the Bartow County Homebuilders' Association coordinated by the Bartow County Director of Engineering;
- Speaker's Bureau to speak on stormwater topics to area civic groups, with speakers to include County Administrator, Bartow County Water Superintendent, Stormwater personnel, and Keep Bartow Beautiful Coordinator;
- Stormwater Educational Materials, including a variety of flyers and pamphlets on E&S practices for homebuilders, new homeowners, and other topics such as septic system maintenance, xeriscape landscape plans, and proper fertilizer/pesticide application, developed by the Clean Water Campaign, P2AD, and EPA;
- Stormwater Management web page on the Bartow County Engineering Department's web space to include lawn and garden activity tips, water conservation, household waste disposal, household recycling, septic system maintenance, hazards of illicit dumping, and others;
- Newspaper Column on homeowners' stormwater pollution prevention responsibilities to be published quarterly in the Daily Tribune, written by the Bartow County Extension Agent.

Bartow County's Stormwater Management Plan includes 30 best management practices which include education and outreach in schools, to homeowner's associations, to the general public in brochure format, as well as news articles in the local paper dealing with stormwater management, volunteer stenciling of storm drains, and stream cleanup. These BMPs are carried out in cooperation with the County Extension Service, Keep Bartow Beautiful, the Boy and Girl Scouts, the County Engineer, and others in the County.

Bartow County is mapping stormwater drainage outfalls throughout the county to remain in compliance with its Phase II MS4 stormwater permitting. In 2006 100% of the county's stormwater outfall mapping is scheduled to be completed.

Gordon County Municipal Ordinances

The Gordon County Planning and Development Ordinance was adopted in 1997 and revised in 2004; it includes regulations for stormwater management, river corridor protection, and wetlands protections. Section 11-129, Stormwater Management, includes stormwater regulations to govern the location and size of the separate stormwater management and drainage structures including catch basins, piping culverts, retention structures, and drainage easements. Requirements are based on a 25-year flood event.

The Gordon County River Corridor Protection Ordinance (Article V, Sections 11-251 to 11-257) was adopted in 2004 and regulates growth along three protected rivers, the Conasauga, Coosawattee and Oostanaula Rivers. Management measures are specified in the Gordon County River Corridor Protection Plan. Buffers of 100 feet are set along these rivers, with qualified exemptions for forestry and agriculture.

The Gordon County Wetlands Protection Ordinance (Article VII, Sections 11-351 to 11-360) was adopted in 2004 to protect wetlands from disturbance. Exempted activities are forestry, agriculture, and recreational activities, with qualifications.

Gordon County's Floodplain Ordinance is being revised.

Gordon County's litter ordinance was adopted in 1992 and prohibits waste disposal or dumping into waters.

The Gordon County Zoning Ordinance was adopted in 1997 and revised in 2005 to include the Planned Residential Development to create and conserve open space recreational and greenway areas within new development.

Cherokee County Municipal Ordinances

Cherokee County Post Development Stormwater Management (Section 6.0) of the Cherokee County Development Ordinance was revised in 2005 to establish post-development stormwater runoff control minimum requirements, encourage use of non-structural BMPs and requiring new development and redevelopment runoff control standards and design requirements.

The Cherokee County E & S Ordinance (Ordinance 2004-O-002, Section 26) establishes a twenty-five foot buffer along all waters of the state and a fifty-foot buffer along trout streams (variances to 25 feet can be granted along secondary trout streams); it establishes best management practices to protect buffers along these streams.

Etowah Habitat Conservation Plan

The Etowah Habitat Conservation Plan reflects the work done by municipalities, water authorities, developers, industry, the University of Georgia, Kennesaw State University, Georgia DNR, the US Fish and Wildlife Service, and others in the Etowah River watershed to protect threatened and endangered species of darter by developing a regional conservation plan. The plan, including model ordinances and policies, allows included jurisdictions to be in compliance with the Federal Endangered Species Act and to obtain an Incidental Take Permit from the US Fish and Wildlife Service for development activities in the watershed, excluding agriculture and forestry. Ordinances and policies for implementation include the following:

- Stormwater Ordinance and Better Site Design
- Runoff Limits Program

- Erosion and Sedimentation Control Standard Operating Procedures
- Mass Grading Ordinance
- Stream Buffer Ordinance
- Road Crossing Guidelines
- Utility Crossing Guidelines
- Conservation Subdivision Ordinance
- Water Supply Planning

Existing municipal ordinances covering these areas can be updated. Revisions to the Metropolitan North Georgia Water Planning District Model Ordinances were recommended by the Etowah HCP subcommittees, as were revisions to the Bartow County Watershed Assessment and Protection Plan.

Specific areas of concern to the Etowah River identified by the Etowah Regional Aquatic Habitat Conservation Plan, and the corresponding actions taken by the county to address them, include:

- Poor riparian buffers
- Point sources
- Construction
- Channel erosion
- Historic sediment
- Impervious surfaces and storm water runoff
- Livestock
- Invasive Species
- Water Reservoirs

Bartow County has adopted the Metro North Georgia Water Planning District's model stormwater ordinance as revised by the Etowah HCP. The County is in the process of coordinating other existing ordinances with review of the Etowah HCP. Yet other revisions and ordinances dealing with runoff limits, road and utility crossings, are still being developed by the Etowah HCP.

Coosa River Basin Modeling Project (Georgia DNR EPD)

Georgia DNR EPD and USEPA are in the process of conducting a monitoring project to study the accuracy of the model developed for the Coosa River Basin. Monitoring is ongoing in 2005-2006 on the Coosa River and its tributaries. Data will be incorporated into the Total Maximum Daily Load (TMDL) for dissolved oxygen. The Coosa River Modeling work will be done by the Georgia DNR EPD in 2006 and 2007. A final model will link the Coosa River model and the Lake Weiss model. The combined models will evaluate oxygen demanding loads, nutrient loads, and temperature effects for heat loads, on dissolved oxygen (DO) concentrations in the Coosa River. The following data will be collected:

- Watershed flow and temperature data
- Continuous water quality monitoring
- Water quality sampling

- Chlorophyll a sampling
- Wastewater treatment facility sampling and data collection (module 5)
- DO and temperature depth profiles
- Basin-wide phosphorus data
- Specialized studies
 - Reaeration measurements
 - Sediment Oxygen Demand measurements
 - Long-Term Biochemical Oxygen Demand (BODs)
 - o Dye studies

Data collected on the Salacoa after Pine Log Creek converges prior to its confluence with the Coosawattee in separate modules will be as follows:

Module 1: Watershed Flow and Temperature Data. This module includes the installation and annual operation and maintenance of watershed stream flow gages with temperature recorders, for two years. The data from these gages will be used either directly as model input or to estimate tributary input data for ungaged streams (Georgia DNR EPD).

Module 2: Continuous Water Quality Monitoring. This module includes continuous water quality monitoring for dissolved oxygen, temperature, conductivity, pH, and depth, downstream from Carters' Dam to collect upstream boundary condition data to include in EPD RIV-1 (Georgia DNR EPD).

Module 3: Water Quality Sampling. This module includes the collection and analysis of discrete water quality samples at locations on the Coosa River mainstem and tributaries from Allatoona Dam on the Etowah River, Carters Lake on the Coosawattee River, and the USGS Eton gage on the Conasauga River to the George/Alabama State Line. The samples will be analyzed for carbonaceous and total BOD₅ (inhibited and uninhibited), DO, temperature, TKN, NH₃, NO₂-NO₃, total phosphorus, ortho-phosphate, TOC, conductivity, and pH. Flow measurements will be made at the time of sample collection (Georgia DNR EPD).

Module 4: Chlorophyll A. This module includes continuous chlorophyll monitoring and periodic data collection on mainstem and tributaries of the Coosa River Basin to calibrate river and lake models (Georgia DNR EPD).

Module 8: Special Studies. This module includes several specialized studies including reaeration, sediment oxygen demand (SOD), long-term BOD tests, and dye studies. River, tributary and selected wastewater treatment plant effluent samples will be collected for long-term BOD analysis during the field surveys. Long-term BOD analyses will include periodic testing of nitrogen components to determine possible nitrification reactions. Aged river water will be used as dilution water, when necessary. Samples will be collected and analyzed from each location for both monitoring years (Georgia DNR EPD).

2002 Farm Bill, US Department of Agriculture Natural Resources Conservation Service and Farm Service Agency

The Farm Security and Rural Investment Act of 2002 (Farm Bill 2002) funded conservation practices for farmers and ranchers with a focus on environmental issues by making existing programs simpler as well as funding new programs. The 2002 Farm Bill enhances the long-term quality of

our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality. These include the following programs administered by the US Department of Agriculture, Natural Resources Conservation Service and Farm Service Agency.

- The Federal Farm Bill (Swampbuster Ag) prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture.
- The Water Bank Act preserves, restores and improves wetlands of the Nation and thereby conserves surface waters to preserve and improve habitat for migratory waterfowl and other wildlife resources to retire lands not in agricultural production to enhance the natural beauty of the landscape and to promote comprehensive and total water management planning.
- The Conservation of Private Grazing Land Program will offer technical assistance opportunities for better grazing land management. Projects for improving water quality include: protecting soil from erosive wind and water; conserving water; providing habitat for wildlife; sustaining forage and grazing plants. This is not a Cost-Share Program.
- Conservation Security Program (CSP) is the first program that rewards farmers and ranchers for high levels of environmental stewardship.
 Producers on cropland, orchards, vineyards, pasture and range may apply for CSP regardless of size, type of operation, or crops produced.
 Land in other cost share programs is not eligible. CSP will first be offered in watersheds with greatest potential for improving water quality, soil quality and grazing land condition.
- Environmental Quality Incentives Program (EQIP) is a voluntary program that provides technical and cost share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health. It is a 50% cost share with possible additional incentive payments.
- Wetlands Reserve Program (WRP) provides technical and financial assistance to landowners to enhance wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities.
- The Conservation Reserve Program (CRP) provides technical assistance, rental payments and cost share funding to address specific natural resource concerns including: protection if ground and surface waters, soil erosion and wildlife habitat. An annual rental payment is given for land taken out of production and 50% cost share for practice installation.

Other Watershed Activities

The Northwest Georgia Regional Water Resources Partnership (NGRWRP) was created in 2002. The NGRWRP is an organization of water permit holders, local governments, industry, environmental, and other advocacy entities in Northwest Georgia with an interest in water issues (North Georgia Regional Development Center, 2005). The purposes of the Partnership are to monitor and contribute to the development of federal, state, and local water policy; educate the citizenry on water related issues; seek funding and facilitate the development of regional water-related assessment and planning activities; and coordinate the activities of federal, state, and local entities (NGRDC, 2005). Gene Camp, Bartow County Water Department Superintendent, serves on the partnership's executive committee. Kelly Cornwell, City of Calhoun Director of Utilities, serves on the partnership's executive committee.

The Gordon County Extension Service was active in working with broiler growers operating a dry manure poultry operation under the Animal Feeding Operation requirements to complete Comprehensive Nutrient Management Plans and apply for EPD approval between 2003 and 2005. Extensive education and outreach efforts were done by the Extension Service throughout the Bartow, Gordon, and Floyd areas (Moraitakis, 2005).

The Limestone Valley Resource Conservation and Development Council, Inc. serves as a regional effort to conserve natural resources. The eleven Northwest Georgia counties included in its area of service include Gordon, Pickens, and Cherokee Counties. The Limestone Valley RC&D Council is a tax-exempt, nonprofit organization with funding provided by sponsors, including the eleven counties' commissions, the North Regional Development Center and the following Soil and Water Conservation Districts: Limestone Valley S&WCD, the Blue Ridge Mountain S&WCD, the Catoosa County S&WCD, and the Coosa River S&WCD (Limestone Valley RC&D, 2006). Projects funded through Limestone Valley include the No-Till Program, the Georgia Better Back Roads Program, and the Conasauga River Alliance. The No-Till Program has been in operation for several years. The no-till drill plants crops by passing one time over the field instead of several times, reducing disturbance and subsequent erosion possibility of topsoil. Energy grants fund the No-Till program. Other equipment available through the program includes chemical sprayers to control weeds, a pasture aerator, a mobile livestock scale, and a lagoon pumpout unit, all of which reduce runoff from pastures and crops by improving pasture grass stand quality and filtration ability, as well as reducing overfilling of waste lagoons, thus decreasing the possibility of leaks or runoff leading to fecal coliform impairment in watersheds.

Rolling Hills Resource Conservation and Development Council serves as a regional effort to conserve natural resources in a nine-county district including Bartow County. The Rolling Hills RC &D is supported by the Natural Resources Conservation Service and by the county commissions which it serves, the Coosa River and West Georgia Soil and Water Conservation Districts, and other sources. The Rolling Hills RC&D sponsors the Environthon competition, a yearly competition for high school students, testing skills and knowledge of aquatics including water quality and other environmental topics. District and State competitions will be in March 2006. The RC&D also conducts other projects such as the no-till planter lease program. Other environmental and water quality projects are in the proposal stages.

The New Echota River Alliance provides non-point source education to 3rd and 4th grades in local schools, teaching sources of pollution and the effect of these non-point sources on water quality in the stream. As time and funding permit, this newly begun program will expand. As well, the New Echota River Alliance (NERA) conducts a workshop called "Get the Dirt Out." This is a volunteer training program for construction site inspection, and trains individuals to identify lack of BMPs in construction activities. NERA is funded by donations, grants from foundations, and membership.

Adopt-A-Stream, in conjunction with Coosa River Basin Initiative (CRBI), conducts ongoing water quality chemical and biological volunteer training and monitoring, stream clean-ups, stream bank and habitat restoration, and visual stream surveys in Bartow County.

Get the Dirt Out is a project of the Coosa River Basin Initiative which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin.

Keep Bartow Beautiful runs several education and outreach programs including the following: Teacher training for Waste In Place, Project WET (Water Education for Teachers), and Enviroscape non-point source pollution using tabletop models; Stormwater-related presentation materials provided to schools; and a Speakers' bureau to provide outreach on storm water issues to local civic groups. Other projects are in the proposal stages.

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Bartow County Greenspace Committee acquires and preserves riparian buffers in Bartow County. Greenspace lands will be used for recreation with walking trails, and will feature restored riparian buffers and other conservation measures. The committee is funded by SPLOST funds. Proposed purchases include a tract on the South bank of the Etowah between Pumpkinvine Creek and Paga Mine Road.

Salacoa Creek COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Salacoa Creek	Pickens and Gordon Counties (EPA)	Whole watershed	Fishing	NS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Biota (Sediment) / Habitat	No degradation of fish community	Road CrossingsAgriculture (Row Cropping)Bare groundSilviculture	92 percent

IV. IDENTIFICATION AND RANKING OF POTENTIAL SOURCES OR CAUSES OF IMPAIRMENT

INVESTIGATE AND EVALUATE the sources of impairment for each parameter listed in Table 2. Write a narrative describing efforts made or procedures used to verify the significance and extent of the sources or causes of each impairment listed in the TMDLs. Include:

- Involvement of stakeholder group

- Field surveys

- Review of land cover data

- Evaluation of sources

Verification of the significance and extent of the sources or causes of each impairment listed in the TMDLs was done through a series of field surveys and stakeholder meetings. The TMDLs list probable causes of impairment to streams for Biota (Sediment)/ Habitat: Road Crossings, Agriculture (Row Cropping), Bare ground, and Silviculture. A 92% reduction is sought from the overall sediment loading.

The impaired stream segments were visited by windshield survey to verify potential sources or causes of impairment. A series of stops allowing visual field surveys of Salacoa Creek were conducted to visually evaluate stream condition including turbidity, sedimentation and erosion, stream bank condition, streambed condition, depth, flow, and color. Field surveys also noted factors thought to contribute to non-point sources of sediment loadings.

This data from field surveys was combined with GIS and other map data and EPD listings of NPDES dischargers as well as information from stakeholders. Local stakeholder input was gathered; local government officials, other individuals were contacted to determine causes or sources of stream impairment. Photographs of sources seen in the field surveys and corroborated by stakeholders are found in Appendix C.

Point Sources

No point sources of sediment are identified in the TMDL document. Water Purification Control Plants may discharge organic sediment but this is unlikely to accumulate in creek beds and add to the sediment impairment. Additionally, mining and construction sites are point sources that can add to the sediment load; permitting is required for these activities to address erosion and sedimentation. Landfills without proper erosion and sedimentation controls can also be a source of sediment.

NPDES permits:

One private LAS, operated by **Lacey Champion Carpets**, **Permit # GAU010521**, is located just north of Fairmount, due east of Sam Gillespie Rd. The City of Fairmount operates its LAS as well, **Permit # GA 0046388**.

Landfills:

City of Fairmount Landfill Permit # GA 0046388 on US 411.

Privately Leased Landfill Permit # GA064-016D (SL) on Redbone Ridges Road.

City of Ranger Landfill Permit # GA064-010D (SL) on Lick Creek Road.

The **Bell Stone Company rock quarry** is located in the outside edge of the watershed in Pickens County. No signs of erosion were seen. Please see the following photographs: 1. HUC-10 0315010206 Salacoa Creek at Quarry Road: Location of Bell Stone Quarry; and 2. HUC-10 0315010206 Salacoa Creek at Quarry Road: Quarry visible on hill

Dimension Stone rock quarry possibly under lease.

Non-Point Sources

Bare ground from construction activities: Current construction of residential development in area of Soaring Hawk in Pickens County. As that area is hilly, potential for erosion and sedimentation from hillside runoff into stream at base of hill is increased during construction. If BMPs do not adequately address this added erosion, sedimentation is likely in these conditions. Several large completely denuded hillsides were exposed; sediment BMPs appeared to be in place but there still may be potential for erosion/sedimentation. Sandbars noted. Please see the following photographs: 3. HUC-10 0315010206 Salacoa Creek at Hwy 53 Bridge: Clear-cut hillside; 4. HUC-10 0315010206 Salacoa Creek at Bridge Road: Clear-cut hillside; and 5. HUC-10 0315010206 Salacoa Creek at Knights Bottom Road: Sheet and Rill Erosion

Agricultural: Stream Access

Cattle had access to stream in some areas but were fenced out of stream in others. Unrestricted access to streams can contribute to breakdown of banks and add sediment directly, as well as stirring up sediment in creek bed to flow downstream. Stakeholder input indicates fencing may lead to flooding problems. Please see the following photographs: 6. HUC-10 0315010206 Salacoa Creek at Hwy 61 Bridge: Agricultural stream access; 7. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 1 of 3; 8. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 2 of 3; and 9. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 3 of 3.

Road Crossings

There is a possibility of erosion from dirt roads in the watershed. None were seen in the field survey.

Agriculture (Row Cropping)

Row cropping was not seen in the watershed. Stakeholders indicated that there is row cropping in this watershed. As well, sod farming, which is regarded as a commercial operation according to the NRCS, but is located on agriculturally zoned land, occurs on Highway 156. Limestone Valley R C& D and the USDA are both active in encouraging the use of soil conservation best management practices to prevent erosion and sedimentation in fields.

Silviculture

Private and public forests are predominant in the area. However, logging was not noted in the watershed. The Georgia Better Back Roads Program through the Limestone Valley RC & D addresses erosion of dirt road surfaces.

Field Survey Notes (Please See Photographs in Appendix C)

Field Notes 5/4/05

Jill Joss / Vickie Yarborough Wx: Sunny 75 degrees

#1 Salacoa Creek

Primary land use: pasture/ new residential development

Roman numerals indicate stops made

I. Rd. bridge Hwy 53 approx 1.5 miles from center of Fairmount

Riffles off bridge to east. Water flowing well. Clear (rocks visible on bed), green looking, woods on both banks up to the streams edge. Rocks along the bank, good buffer zone. Downstream sand bar with possible undercutting of bank. Pasture beside stream on north bank. Photograph taken: 3. HUC-10 0315010206 Salacoa Creek at Hwy 53 Bridge: Clear-cut hillside.

II. Hwy 61 Rd. bridge

Land use – pasture and forested, sandy soils (more easily erodible), some undercutting of banks, water appears slightly green in color but still clear, sand bar under bridge. Overall good riparian buffer.

Photograph taken: 6. HUC-10 0315010206 Salacoa Creek at Hwy 61 Bridge: Agricultural stream access.

III. Salacoa Rd. bridge

Looking downstream, ground is giving way, slumping towards the stream. Hoof impressions in mud indicating cows have access to the stream. Pile of livestock manure beside the stream. Water very cloudy. School of minnows swimming. Riffles and sandbar in area.

Photographs taken: 7. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 1 of 3; 8. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 2 of 3; and 9. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 3 of 3.

IV. Johnson Mtn. Rd. – land owned by *Etowah Sportsmen's Club(www.etowah.50megs.com)*, good buffer throughout this densely wooded area. Less undercutting of banks at stream

V. Cagle Circle – tributary to stream

D/s view of horse farm and pasture did not take. Water is clear, horses are fenced out of the stream. Buffer too narrow.

VI. Crossing Salacoa Rd. –

Muddy water, animals having access to stream, sandy soils, attempt at rock riprap, water line running down valley. Spoke with farmer r.e. sediment problem, stated that "dirt comes and goes, depending on the rain". *John Bennett Jr. – owns 1,000 acres.*

VII. Jerusalem Church Rd.

Spillway- a corrugated aluminum structure extended across width of stream to fence out cattle.

VIII. Quarry Rd. – near outside edge of watershed in Pickens County

Location of Bell Stone Quarry. No visible signs of sedimentation from this source.

Photographs taken: 1. HUC-10 0315010206 Salacoa Creek at Quarry Road: Location of Bell Stone Quarry; and 2. HUC-10 0315010206 Salacoa Creek at Quarry Road: Quarry visible on hill.

- IX. Soaring Hawk much residential development in area, Small stream seen, as tributary to Salacoa Creek.
 - X. Small tributary to Salacoa Creek
 - XI. Marlowe Branch

Murky water, pasture appears abandoned, wetlands nearby w/cattails. Young boy seen fishing.

XII. Mauldin Rd.

White pvc pipe extending up out of the creek – possibly for withdrawal by fire departments? Undercut banks seen.

XIII. Bridge Rd. Bank failure seen.

Photograph taken: 4. HUC-10 0315010206 Salacoa Creek at Bridge Road: Clear-cut hillside.

- XIV. Knights Bottom Rd. bridge built in 2002, large rocks placed along bridge abutment. Pools in water.
- XV. USGS Stream Monitoring Station water more murky than elsewhere in watershed, rock banks, little erosion at this site.
 - XVI. Knights Bottom Rd.

Sheet & Rill erosion seen.

Photograph taken: 5. HUC-10 0315010206 Salacoa Creek at Knights Bottom Road: Sheet and Rill Erosion.

The survey indicated that land use in the watershed was primarily pasture and forest. The area along the stream banks is rocky in several places.

Signs of stream bank erosion include undercutting of banks and bank failure. Sandbars in stream upstream of Fairmount indicate erosion and sedimentation. Sandy soils seen in this area may erode more easily than clay in other areas.

Overall, riparian buffers appeared good. Banks, however, were undercut or failing in several places along the segment. Kennesaw State University – "Status of Water Quality and Biological Integrity in Major Watersheds in Bartow County" Final Report 2001: ecological integrity of invertebrates was poor relative to fish, physical habitat and water quality, but some invertebrate metrics indicated high ecological integrity. (p. vii.) The fish community in this area shows high ecological integrity. Stakeholder input indicated that row cropping is present in the watershed.

To the extent possible, identify sources and quantify the extent of pollution in the stream segment for each of the parameters listed in Table 2 and evaluate the likely impact on the parameter load to the stream. This should follow research performed and described in preceding narrative and should correct or add information to the TMDLs. The <u>SOURCES SHOULD BE RANKED</u> from those having the most impact to those having the least impact. The estimated extent of contribution can be expressed as the area of the watershed affected, the stream miles affected, or the number of activities contributing to the problem. The magnitude of contribution should be estimated to be large, moderate, small, or negligible.

Table 3. CONCLUSIONS MADE OF POTENTIAL SOURCES OF STREAM SEGMENT IMPAIRMENT

PARAMETER 1	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Biota (Sediment) / Habitat	Bare ground from construction activities	Soaring Hawk, Pickens County	Moderate	Hilly topography and sandy/rocky soils contribute.
Biota (Sediment) / Habitat	Agriculture: Stream Access	Downstream of Fairmount	Moderate	Especially noted downstream of Fairmount. Sandy/rocky banks may more easily fail.
Biota (Sediment) / Habitat	Silviculture	Throughout watershed	Small to moderate	No current logging seen.
Biota (Sediment) / Habitat	Dirt Roads, Road Crossings	Throughout	Small to moderate	
Biota (Sediment) / Habitat	Agriculture: Row Cropping	Throughout	Small to moderate	No-Till farming use is widespread
Biota (Sediment) / Habitat	Commercial Sod Farming	Sod Farm on Hwy. 156	Small to moderate	Sod farming may especially contribute if BMPs are not used.

V. STAKEHOLDERS

PUBLIC INVOLVEMENT AND THE ACTIVE PARTICIPATION OF STAKEHOLDERS is essential to the process of preparing TMDL implementation plans and improving water quality. Stakeholders can provide valuable information and data regarding their community, impaired water bodies, potential causes of impairments, and management practices and activities which may be employed to reduce the impacts of the causes of impairment.

Describe outreach activities to advise and engage stakeholders in the TMDL implementation plan preparation process. Describe the stakeholder group employed or formed to address the impaired segments in the watershed. Summarize the results of the number of attendees and meetings and describe major findings, recommendations, and approvals.

Stakeholder Determination

Stakeholder lists were developed by reviewing lists of stakeholders contacted and involved in previous TMDL projects and in Source Water Assessment Projects done by the Coosa Valley RDC. Other stakeholders were added as they came forward or through word of mouth were introduced to the process. As well, other stakeholders were contacted and asked to participate, if they had not already been listed. Stakeholders were informed of the process and invited to participate, and to attend informational sessions, by mass mailings.

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The Coosa Valley Regional Development conducted several TMDL informational and stakeholder public meetings:

May 17, 2005 TMDL Stakeholder Meeting held at the Forum in Rome, Georgia for the streams in the Coosa Basin (27 attendees)

August 30, 2005 TMDL Stakeholder Meeting held at Red Top Mountain State Park & Lodge, Cartersville, Georgia for the streams in Bartow/Gordon/Paulding/Polk/Pickens County areas (20 attendees)

October 18, 2005 Fall Workshop-Northwest Georgia Regional Water Resources Partnership held in Dalton, Georgia. Workshop title: CLEAN WATER the TMDL Link, A Toolbox for Improving Water Quality. Coosa Valley Regional Development Center & North Georgia Regional Development Center had two separate breakout sessions on the TMDL Implementation Plans for Stakeholder Interest (73 attendees)

December 7, 2005 Stakeholder Meeting held at the Calhoun Depot in Calhoun, Georgia for the Bartow, Gordon, Paulding, Polk and Pickens Counties (6 attendees).

Individual stakeholders were contacted during the course of developing the TMDL implementation plans as well.

Stakeholder Meeting for Bartow/Gordon/Paulding/Polk/Pickens Counties SubBasin Comments

Stakeholders had the following comments:

- Local governments do not have regulatory authority to control agriculture or septic processes.
- Georgia Poultry Federation sees the farmers and growers that are willing to be educated and implement BMPs.
- Bartow County farmers still allow cattle to get to streams to pollute.
- Septic systems are not generally regulated and the State of Georgia needs to be proactive and set regulations to control septic or agricultural sources. Are there any regulations where the owner who clears vegetation along a stream bank can be corrected?
- EPD should enforce their authority and not rely on local governments to do enforcement. Get the State to partner with local government. We do not understand why EPD lowered the buffer zone along streams. The State of Pennsylvania requires on-site septic systems to be regulated.
- From jurisdiction to jurisdiction, we need to work together to understand how to implement the TMDL process.
- Speaking from the poultry-agricultural issues, getting farms to operate effectively and well managed will benefit local governments. Do not over regulate farmers.
- The need is great to get the TMDL information and assure accuracy. Cities and governments are regulated on accurate information.
- Make sure standards that are used to regulate streams are correctly identifies as to which ones actually impact human health.
- Can 319 grants are used? Can the money be funneled through the RDCs?
- We need to use a comprehensive approach to onsite septic systems where there are no sewer systems?
- How do we develop BMPs when the sources are not known?

Stakeholder advisory groups were formed from those stakeholders who indicated an interest in serving on the committee at the informational meetings, in interviews and in information gathering, as well as those who volunteered to be on the committee. Additional stakeholders were contacted directly and asked to be in the advisory groups. A cohesive mix of city and county leadership, water treatment operators, public works, code enforcement, engineers, environmental health, Keep Georgia Beautiful affiliates, environmental advocates, interested citizens and volunteers, NRCS agents, RC&D coordinators, extension service personnel, farmers, and other interested parties was sought as representatives of their particular viewpoints and areas of expertise.

Throughout the process input was gathered from individual stakeholders both as information to complete the plans and as insight into possible sources and causes of fecal coliform pollution, ideas on implementation activities, and obstacles to overcome in improving water quality. Of high concern was the reliability of initial data and the appropriateness of sampling sites and methods. Of concern as well was the feeling that individual concerns or facets were being singled out as a culprit in this process. Additionally stakeholders expressed the feelings that the same process had been repeated multiple times without efforts being made to continue the TMDL implementation. As these were legitimate concerns, care was taken

to address them and to emphasize the nature of the current plans, to look at the watershed as a whole, to involve stakeholder groups in the entire effort, and to ultimately place the stakeholders in the drivers' seat for the future. The Sampling Quality Assurance Plan protocol for additional monitoring was also addressed for those groups interested in gathering additional data to verify initial results or to de-list the stream.

The Bartow County Stakeholder Advisory Group (BCSAG) was formed in January 2006 for the purpose of establishing and directing stream water quality monitoring and outreach efforts to address nonpoint source pollution. Stakeholders in this group, representing Bartow County, Cities of Cartersville and Euharlee, and government agencies, have worked together previously on watershed assessment and source water assessment plans as well as other environmental and water quality efforts.

This group met in January 2006 to review the draft TMDL Implementation Plans for watersheds in the county and to discuss monitoring and outreach efforts. Two subcommittees were formed: One to review stream monitoring data for these watersheds and to implement additional monitoring as needed; and the second to begin septic system maintenance outreach to homeowners.

Stakeholder Advisory Group Comments- January 31, 2006

Stakeholders introduced themselves; those present included Gene Camp, Bartow County Water Department, Pam Robinson, Bartow County Health Department, Steve Bradley, Bartow County Administrator, Lamont Kiser, Bartow County Engineer, Cindy Haygood, Rolling Hills RC&D, Curt Gervich, Etowah Habitat Conservation Plan, Edmund L. Mullinax, City of Cartersville, Kathy Floyd, Bartow County Extension Service, Katie Knowles and Jim Shinall, USACE, and Jim Stafford, City of Cartersville, and Bobby Gay, City of Euharlee Code Enforcement, were present.

Jill Joss and Julie Meadows, CVRDC, introduced the TMDL Implementation Plan process.

Jill Joss presented a summary of discussion from previous meetings including data, sampling, impairment sources, management measures, input, and concerns of local governments, agriculture, landowners and individuals.

Julie Meadows reviewed management measures in draft TMDL Implementation Plans (TMDLIPs) for Pine Log Creek (HUC-10 0315010207); Oothkalooga Creek (HUC-10 0315010302); Pumpkinvine Creek (HUC-10 0315010411); Raccoon Creek (HUC-10 0315010412); Etowah River (HUC-10 0315010413); Euharlee Creek (HUC-10 0315010414); Etowah River/Two Run Creek (HUC-10 0315010415); and Silver Creek (HUC-10 0315010416).

Stakeholders suggested comments and additions to the management measures as follows:

Stakeholders asked that the Etowah Habitat Conservation Plan language be included in management measures with applicable ordinances for participating jurisdictions. Suggested that sewer expansion might not be the way to go, suggesting improvements to septic systems instead.

It was stated that the Poultry Waste Management Program district does not extend to Bartow County, and asked that the Continuous Conservation Reserve Program be included as it includes measures such as fencing livestock out of streams and provides up to a 90-10% cost-share, as well as the Conservation Reserve Program which includes erosion control measures.

It was stated that the County's new Notice of Intent had been approved by the EPD and over 30 BMPs for stormwater management should be included. It was clarified that land disturbing permits are obtained through the County.

It was clarified that the Greenspace Committee has purchased several greenspace lots and recommended that those acquisitions be included, as well as striking percentages from language that described Committee efforts. Negotiations are ongoing for further greenspace.

Sewer systems were discussed further: Lot size and configuration were listed as problematic, encouragement of dense enough development to warrant water and sewer was mentioned.

It was stated that Bartow County had been the first to implement a DVD education outreach program for new septic system owners in 2004 and it was now statewide. The Health Department can only check systems if there are complaints, which are sometimes received from landowners or from surveys done by the COE at Lake Allatoona. New regulations for septic system installation recently introduced.

How to get the information out to those getting new permits? A possibility might include getting the word out through water utilities, sending out information to those not on sewer.

It was stated that there is no mandatory update or management of septic systems; that there should be additional public education.

Suggestions were made that the State be more proactive to establish regulations for septic systems at the State level. Education on maintenance of systems is key. Resale of homes with septic systems is also an issue.

Sheri Henshaw, director of Keep Bartow Beautiful, was unable to be present but had sent information about outreach programs that Keep Bartow Beautiful is coordinating. These programs are detailed in the outreach section of the TMDL Implementation Plans for watersheds in Bartow County and include the following projects: Etowah River Cleanup; Environmental education including Teacher Training for Waste In Place, Project WET (Water Education for Teachers); Enviroscape (illustrates non-point source pollution in the classroom using tabletop model); Stormwater education in schools; Development of a speaker's bureau to present stormwater issues to civic groups; and Adopt-A-Stream. Proposed projects include a homeowner's workshop on maintaining septic tanks, including the topics "Different Functions of Septic Tanks; How They Should Function; Common Causes of Failure; Maintenance For Longevity; Potential Contaminants in the Effluent; and Site Limitations"; a workshop on rain gardens for stormwater catchment, and cooperative development of a demonstration rain garden at Red Top Mountain State Park with signage.

A grant program was mentioned in rural Kentucky through PRIDE (Personal Responsibility in a Desirable Environment) for low-income homeowners to connect to existing sewer or install a permitted septic system; a possibility of a similar pilot project in this area.

Sampling was discussed. Previous and current sampling sites (EPD, USGS) were reviewed. Future or ongoing sampling was discussed especially for the tributary to Petit Creek segment and the Euharlee. Previous sampling data for all watersheds were requested for further study.

It was remarked that errors in data may have caused pristine streams may have been listed in error.

Funding sources were discussed by all. Information on EPD's 319 h grant requirements for 2006-2007 will be announced in early February and relayed to stakeholders.

The Northwest Georgia Water Resources Partnership was introduced for regional water planning purposes.

A subcommittee was formed to review sampling data, including:

- Steve Bradley, Bartow County Administrator
- Ed Mullinax, City of Cartersville
- Gene Camp, Bartow County Water Department
- Sheri Henshaw, Keep Bartow Beautiful
- Katie Knowles, USCOE Allatoona Dam
- Jill Joss, Coosa Valley RDC

A subcommittee was formed to plan septic system outreach, including:

- Gene Camp, Bartow County Water Department
- Bobby Gay, City of Euharlee Zoning and Code Enforcement
- Pam Robinson, Bartow County Environmental Health
- Kathy Floyd, Bartow County Extension Service
- Cindy Haygood, Rolling Hills RC&D
- Jim Shinall and Katie Knowles, USCOE Allatoona Dam
- Julie Meadows, Coosa Valley RDC

The meeting was adjourned.

Amended February 2, 2006.

The Gordon and Pickens County Stakeholder Advisory Group (BCSAG) was formed in February 2006 for the purpose of establishing and directing stream water quality monitoring and outreach efforts to address nonpoint source pollution in the county. Stakeholder input indicated that farming in the County is decreasing in general while housing developments are increasing. The Stakeholders met in an initial meeting February 24 to review the implementation plans, discuss sources and causes, and review possible implementation activities and recommendations of the Coosa Valley RDC.

Gordon-Pickens Counties Stakeholder Advisory Group- February 24, 2006

Attendees included Kathy Cox, Gordon County Ordinance Officer; Rodney Buckingham, Pickens County Planning and Development; David Howerin, Coosa Valley RDC; Tom Burgess, Gordon County Building and Planning; Bob Peoples, Peoples and Quayle, Lawyer for Gordon County; Jill Joss and Julie Meadows, Coosa Valley RDC; Ross Wilburn, City of Calhoun; Jerry Crawford, City of Calhoun; Sam Payne, Gordon County Farm Bureau; Kelly Cornwell, City of Calhoun; and Clayton Jones, New Echota River Alliance.

Plans were discussed for HUCs-10 0315010206, Salacoa Creek, 0315010207, Pine Log Creek, and 0315010302, Oothkalooga Creek.

It was stated that County Road 29 mentioned in the field survey was also known as Love Bridge Road.

In Gordon and Pickens Counties there is no residential development in the area. Around Fairmount, there is a small amount of residential development as well as development to the west of the watersheds. There are singe family homes in the area; septic systems leaking or failing could be a small to moderate source.

Oothkalooga point sources were discussed.

A dirt-selling operation in Bartow, Gordon Counties was discussed. An E & S permit for dirt removal is required for these operations through EPD's mountain districts.

Challenges to non-point source pollution planning were discussed including lack of a conservation mindset. Flooding can be caused by fencing along streams.

On Pine Log Creek, 0315010207, it was discussed that there was an extensive mining operation. Row cropping was done in all. Stream buffers will depend on legislation results.

For 0315010302, Oothkalooga Creek, A point source at Hall Station was discussed as were logging operations in Bartow County around Adairsville, and new housing near the county line.

For 0315010206, Salacoa Creek, a quarry under lease by Dimension Stone was discussed, as was a sod farm just past Cash Road off Highway 53, as well as a sod farm on Hwy 156.

It was stated that challenges to implementation of the recommended activities (education and outreach on stream buffers, septic system maintenance, and stormwater best management practices) are money and personnel. Erosion and sedimentation enforcement is done on a complaint basis and the reality is that federal and state lack of involvement weakens local ability to enforce these measures.

It was asked, how does one check on private property? Agriculture and forestry are exempt from E & S ordinances. It depends on residential maintenance and constant education.

It was stated that agricultural E & S rules are changing, for poultry houses, etc. It was stated that agriculture is decreasing in the entire area.

It was stated that cotton row cropping in the past may have contributed legacy sediment to the streams. It was asked, How could testing be done for legacy sediment.

It was asked, over a ten year period, what could likely be done as far as best management practices, as well as what the likely reduction was to be? It was stated that on construction sites, BMPs may not address the limits that are asked, that lower reductions may be possible.

It was asked if builders could address E & S concerns as have farmers, with the no-till program, and how to change builders' mindsets.

Plan for Salacoa Creek HUC 10 #: 0315010206

It was stated that a lot of erosion comes from unpaved driveways especially on a hill and if older driveways. These small things are additive and create the larger problem of sedimentation. It was asked, How can these smaller issues be addressed? Education and outreach would address all these, especially for the younger generation.

It was stated that fines are not large enough to impact developers.

It was asked how and where sampling was done for these creeks; it was asked how many streams are to be removed from the list. It was stated that EPD is continuing to sample every 5 years for the Coosa Basin and is currently sampling in this basin in 2006.

It was stated that there are regulatory discrepancies.

It was mentioned that New Echota River Alliance does non-point source education for 3rd and 4th grade school children using the water drop suit with a goal to reach all Gordon

Finally it was stated that individual cost is tied to impact of any program.

List the watershed or advisory committee members of the stakeholder group for this segment in the following table.

Table 4. COMMITTEE MEMBERS

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Machelle Simmons, USDA Natural Resource Conservation Service	717 South Wall Street Suite 1	Calhoun	GA	30701	(706) 629-2582 X 3	Machelle.simmons@ga.usda.gov
Kelly Cornwell, City of Calhoun Utilities	P.O. Box 248	Calhoun	GA	30703	(706) 629-4701	kcornwell@calnet-ga.net
Jerry Crawford, City of Calhoun Water and Sewer	P.O. Box 248	Calhoun	GA	30703	(706) 602- 6078	jcrawford@calnet-ga.net
Clayton Jones New Echota River Alliance	723 Culpepper Road SW	Calhoun	GA	30701	(770) 548-0263	claytonjones@coosa.org
Sam Payne Gordon County Farm Bureau	2259 U.S. 41	Calhoun	GA	30701	(706) 629-3144	paynefrm@bellsouth.net
Bob Peoples Peoples and Quayle, Inc						
Christy Blair Gordon County Environmental Health	318 North River Street	Calhoun	GA	30703	(706) 624-1440	chblair@dhr.state.ga.us
Tom Burgess, Dir. Gordon County Building, Planning, Development	Office in Gordon Co. Annex Bldg. P. O. Box 580	Calhoun	GA	30703-0580	(706) 629-0505	tburgess@gordoncounty.org
Kathy Cox Gordon County Ordinance Enforcement Officer	Office in Gordon Co. Annex Bldg. P. O. Box 580	Calhoun	GA	30703-0580	(706) 629-4253	kcox@gordoncounty.org
Doug Cabe Limestone Valley RC & D	125 Red Bud Road NE, Suite 7	Calhoun	GA	30701	(706) 625-7044	dec@lvrcd.org
Steve Moraitakis Gordon County Extension Agent	P.O. Box 95	Calhoun	GA	30703-0095	(706) 629-8685	smorait@uga.edu
Ross Wilburn City Engineer, City of Calhoun	P. O. Box 248	Calhoun	GA	30701	(706) 602-6024	rwilburn@calnet-ga.net
Rodney Buckingham Pickens County Planning and Development		Ellijay	GA		(706) 253-8850	Pickenscoplan-develop@ellijay.com

In Appendix A, list the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

VI. MANAGEMENT MEASURES AND ACTIVITIES

Describe any management measures or activities that have been put into place or will be put into place including regulatory or voluntary actions or other controls by governments or individuals that specifically apply to the pollutant that will help achieve water quality standards. Include who will be responsible for the measure, how it will be funded, the status, the date it will be or was initiated, and a short description of how effective the measure is or will be.

Table 5. MANAGEMENT MEASURES AND ACTIVITIES

GENERAL MEASURES APPLICABLE TO ALL PARAMETERS

MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLEMENTED	EFFECTIVENESS (Very, Moderate, Weak)
Gordon County Soil & Erosion & Sedimentation Control Ordinance	Gordon County Code Enforcement Officer	Revised in 2001; meets current Georgia Erosion and Sedimentation requirements for land disturbing activities on one + acres or those within 200 feet of the bank of any state water. Agriculture and forestry are excluded. Includes 25' buffer along all waters of the state and a 50' buffer along trout streams. Requires stormwater management structures.	General Fund	Enforced	2001	Very
Georgia Planning Act. Part V Environmental planning measures. GA DNR EPD Rules for Environmental Planning Criteria (Ch. 391-3-16)	Gordon, Pickens, Bartow Counties	Wetland protection, river corridor protection, and other ordinances. Specifies minimum criteria for counties, municipalities. Requires 100' buffer on protected rivers. Water supply watershed protection also requires 100' stream buffers.	General Fund	Enforced	1989	
"Get the dirt out" citizen education workshop	New Echota Rivers Alliance	Designed to give citizens the knowledge to monitor construction sites for compliance with regulations	Donations, Memberships	Ongoing	2004	Moderate
Federal Clean Water Act, Section 305(b) and 303 (d)	USEPA, Georgia DNR EPD, Gordon, Bartow, Pickens Counties	The congressional objective of the Clean Water Act "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 305 (the National Water Quality Inventory) requires states to report progress in restoring impaired waters to EPA on a Biennial basis. Section 303(d) requires states to identify 'impaired' waters, submit a list to EPA every two years, and develop TMDLs for these waters	Federal, Georgia	Enforced	2000	
Georgia Water	Georgia Rules and	Law prohibiting discharge of excessive	General fund	Enforced	11/1964	

Quality Control Act (OCGA 12-5-20)	Regulations for Water Quality Control, Chapter 391-3-6	pollutants (sediments, nutrients, pesticides, animal wastes, etc.) into waters of the State in amounts harmful to public health, safety, or welfare, or to animals, birds, or aquatic life or the physical destruction of stream habitats. Law authorizing Georgia EPD to control water pollution, eliminate phosphate detergents, and regulate sludge disposal; to require permits for agricultural ground and surface water withdrawals; to prohibit situation of state waters by land disturbing activities and require undisturbed buffers along state waters; to require land-use plans that include controls to protect drinking water supply sources and wetlands; to require river basin management plans on a rotation schedule for all major river basins.				
Georgia Erosion and Sedimentation Control Act, Construction Permit, 2003 Amendment	Gordon, Bartow, Pickens Counties, Georgia DNR/ EPD, Georgia Soil and Water Conservation Commission	Gordon, Bartow and Pickens Counties certified as Local Issuing Authority for land-disturbing activities. Requires Erosion and Sedimentation Control Plan incorporating best management practices plus "Qualified Personnel" Training and Certification Program adopted from Georgia Soil and Water Conservation Commission. Certification of onsite "Qualified Personnel" to ensure proper design, construction, and maintenance of standard E & S control measures and storm water management practices	General fund	Enforced	2003	
Georgia Erosion and Sedimentation Control Act (OCGA 12-71-1)	Gordon, Bartow, Pickens Counties, Georgia DNR/ EPD, Georgia Soil and Water Conservation Commission	Restricts activity within 50 feet of streams that support or could support trout, and 25 feet of all other streams and lakes. This includes intermittent streams, which do not run yearround, as well as perennial streams	Gordon, Bartow, Pickens Counties, Georgia DNR/ EPD	Enforced	2003; EPD rule revised 1/2005	
Erosion and Sedimentation Control Training and Certification	Georgia Soil and Water Conservation Commission, GA EPD, Limestone Valley RC&D, Gordon, Bartow, Pickens Counties	House Bill 285 requires state certification in Erosion and Sedimentation Control for anyone involved in the following activities: land development, design, review, permitting, construction, monitoring, inspection, or any land-disturbing activity in Georgia (Georgia Soil and Water Conservation Commission, 2005). The GSWCC also has updated requirements for E&SC plans to be submitted with each project. Three levels of certification are offered through the Limestone Valley Regional Conservation and Development	Georgia Soil and Water Conservation Commission, GA EPD	Enforced, certification by end of 2006	2005	Very

		Council (RC & D) for Gordon County, and through the University of Georgia, and through the Rolling Hills RC&D for Bartow. Bartow County has held its own classes as well.				
Municipal Ordinances	Gordon County/ Code Enforcement Officer	Planning and Development Ordinance (2004) Sect. 11-129, Stormwater Management for new development; River Corridor Protection Ordinance (Article V, Sections 11-251 to 11- 257) adopted in 2004 for Conasauga, Coosawattee, Oostanaula Rivers, 100 ft buffer req.; Wetlands Protection Ordinance (Article VII, Sections 11-351 to 11-360) adopted in 2004 to protect wetlands. Floodplain Ordinance in revision. Litter ordinance adopted in 1992. Zoning Ordinance (2005) includes PRD to create/conserve open space in new development.	General Fund	2004	Ongoing	Very if enforced
EPA Section 319 Non-point Source Implementation Grants	Georgia Department of Agriculture/ Georgia Environmental Protection Division for enforcement action	Funds distributed through a competitive process to public agencies, regional development centers, state colleges and universities, and state agencies.	Federal, State		Yearly	Varies with BMP or project
Georgia Best Management Practices	Georgia DNR/EPD	Informs those involved in the agriculture business of effective practices to minimize non-point sources of pollution	Georgia			Varies with BMP
Farm Bill 2002 Forestland Enhancement Program	Georgia Forestry Commission	The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill.	Federal, State		Ongoing	Very
Federal Farm Bill 2002	United States Department of Agriculture/ Natural Resources Conservation Service	Enhances long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality.	Federal Cost- Share and Incentive Programs		2002	Varies with BMP applied.
EPA Section 319 Non-point Source Implementation Grants	Georgia Department of Agriculture/ Georgia Environmental Protection Division for enforcement action	Funds distributed through a competitive process to public agencies, regional development centers, state colleges and universities, and state agencies.	Federal, State		Yearly	Varies with BMP or project
Conservation Reserve Program (CRP)	Natural Resources Conservation Services	Conservation cost-share for conversion of highly erodible croplands to vegetative cover	Federal, State, landowner	Cost-share	Ongoing	Varies

Continuous	Natural Resources	Conservation cost-share for best management	Federal, State,	Cost-share	Ongoing	Varies
Continuous Conservation Reserve Program (CCRP)	Conservation Service	practices such as fencing livestock out of streams; provides up to a 90-10% cost-share	landowner	Cust-stiale	Oligoling	valles
Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services	Voluntary Program that provides technical and cost-share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health	Federal (Farm Bill 2002) 50% Cost share with possible additional payments	Cost- share	Yearly	Varies
Special Forestry/Wildlife Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services	Special funds allocated out of the EQIP program that will address forest road erosion/water quality, plant health, and wildlife habitat. This program has a separate ranking for rewarding money from the regular EQIP program.	Federal 50% cost share with possible additional incentive payments			Effectiveness will vary with the specific application and must be individually determined.
Wildlife Habitat Incentives Program (WHIP)	Natural Resources Conservation Services	Provides technical and cost share assistance for the creation of high quality wildlife habitat. Habitats of special concern include riparian areas and endangered and threatened species habitat.	Federal 75% of cost of the installation of practice provided			Effectiveness will vary with the specific application and must be individually determined.
Wetlands Reserve Program (WRP)	Natural Resources Conservation Services	Provides technical and financial assistance to landowners to enhance degraded wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities. Compatible uses are allowed as long as the do not degrade the wetland.	Federal (Farm Bill 2002) Cost Share 1. Permanent Easement: Pays appraised value of land (\$2,000/ acre cap) and 100% of costs of restoration. 2. 30-Year Easement: Pays 75% of appraised value of land and 75% of restoration costs. 3. Restoration Cost Share Agreement: Pays 75% of restoration costs, no easement on the property.			Effectiveness will vary with the specific application and must be individually determined.
Etowah Habitat	US Fish and Wildlife	SOP includes six elements: 1. Two required	Bartow County,	In review		

Conservation Plan Standard Operating Procedure (SOP) for Erosion and Sedimentation Control	Service, Bartow County	preconstruction meetings- one, an early meeting with the site planner and relevant E&S professionals to identify problem areas before site plans are Finalized, and two, a subsequent meeting with the utilities, engineers, developer, E&S installation crew, and owner to review where and how E&S control measures will be installed; 2. Semimonthly reporting requirements; 3. A bonding program; 4. A minimum inspection frequency requirement; 5. A brief E&S checklist for building inspectors; and 6. Designation of emergency on-call E&S personnel from each development. Requires updates to ordinances in participating jurisdictions.	City of Cartersville			
Notice of Intent coverage of small MS4 under NPDES Phase II general permit	Bartow County	NOI approved by EPD in 2005. Includes Best Management Practices to reduce non-point source pollution in the county. NOI approved in 2005.	Bartow County	Enforced	2005	Very
Phase II NPDES Storm Water Permit for Small MS4	Georgia DNR & EPD, Bartow County	Bartow NOI Approved in 2005. Requires local jurisdictions to develop a comprehensive Storm Water Management Program (SWMP) to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, and monitoring and program implementation. Bartow County is in process of implementing these best management practices.	Bartow County	Enforced	2005	
Watershed Assessment and Protection Plan for Phase II NPDES Permitting	Bartow County	Required for new or expanding wastewater treatment discharge permits. Internal assessment of storm water pollution prevention plan (map of facilities and responsibilities for upkeep): Reference TMDL implementation plans (TMDLIP) and water quality strategies for non-point source pollution elimination. Drives local land use planning. Georgia EPD guidelines include Management Measures Specific for 303(d) listed stream segments in the impacted watershed. WPP to reference TMDLIP	Bartow County	Enforced	2005	

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		already developed. Where no TMDLIP developed, WPP to outline management/ monitoring measures targeting listing violations; identify authority responsible for implementing the above management/ monitoring measures; indicate possible funding sources; establish current status and/or date measures will be initiates, and expected effectiveness; and design educational and outreach activities for intended audiences.				
Storm drain stenciling requirement	Bartow County	County ordinance requiring stenciling of storm drains by developers for new housing developments.		Enforced	2004	
Storm drain stenciling	Keep Bartow Beautiful	Volunteers stencil storm water drains in older residential developments		Voluntary	2004	
Sanitary Sewer Maintenance Program	Bartow County	Sanitary Sewer system inventory and inspection (mapping, television inspections); infiltration and inflow identification and reduction (flow monitoring, smoke testing); sewer line rehabilitation (pipe bursting, relining, cleaning) and manhole rehabilitation.	Bartow County	Enforced	Ongoing	
District-wide Watershed Management Plan	Georgia DNR/EPD, Metropolitan North Georgia Water Planning District (SB 130), Bartow County, Cartersville	Bartow has adopted five of six Model Storm Water Management Ordinances that address Post Development Storm Water Management for New Development and Redevelopment, Conservation Subdivision/ Open Space Development, Illicit Discharge and Illegal Connection, Litter Control, and Stream Buffer Protection as required by Georgia EPD in MS4 Phase II Permit Renewals. The District Plan also addresses municipal good housekeeping practices to control non-point source pollution; improved enforcement of erosion and sedimentation control; storm water management for transportation projects; and education and public awareness activities.	Bartow County, Cartersville	Enforced	Bartow, 12/2005	
Watershed Protection Tools Addressing Poor Riparian Buffers	Bartow County and stakeholders	Riparian Buffer Ordinance (Stream Buffer Protection Ordinance of 50'); Stream Restoration; Stream Mitigation Bank; Conservation Subdivision Ordinance	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	Very if enforced
Watershed Protection Tools Addressing Point Sources	Bartow County and stakeholders	Improved NPDES permits; Enforcement of existing permits	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	Very if enforced

Watershed Protection Tools Addressing Impervious Surfaces and Storm Water Runoff	Bartow County and stakeholders	Relevant Storm water Management and Conservation Subdivision Ordinances; Conservation Planning	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	Very if enforced
County Municipal Ordinance	Bartow County/ Code Enforcement Office	Post-Development Stormwater Management Ordinance with stream buffer limits; Litter Control Ordinance; Conservation Subdivision ordinance; Riparian Buffer ordinance; Greenspace Ordinance	General fund	On-going	January 2005	Very
Federal Endangered Species Act of 1973	Department of the Interior, US Fish and Wildlife Service	Provides a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve those purposes	USFWS	Enforced	1973	Very if enforced
Etowah Habitat Conservation Plan Stormwater Ordinance with Better Site Design Guidelines and Addendum: Runoff Limits, Priority Area Protection and Maintenance of Stormwater Facilities	US Fish and Wildlife Service, Bartow County, Gordon County	Additions to Metropolitan North Georgia Water Planning District Model Storm Water Management Ordinance addressing impervious surface runoff including 1. Clarification of bond and fee requirements; 2. Strengthening maintenance and inspection requirements, 3. Encouraging the use of Better Site Design credits, with additional performance standards for high priority habitat areas including section five, Model Runoff Limits Ordinance. This establishes requirements for runoff infiltration system installation and maintenance. Development of Runoff Limits Manual in progress (2006) Engineering Specifications for Structural BMPs. Requires updates to ordinances in participating jurisdictions.	Bartow County, Gordon County	Enforced	Compliant with or exceeds Metro N. GA District SW ord. 12/07/05	
Etowah Habitat Conservation Plan Stream Buffer Ordinance	US Fish and Wildlife Service, Bartow County, Gordon County	For those jurisdictions in the Metropolitan North Georgia Water Planning District, Additions are made to the district's Model Stream Buffer Ordinance addressing granting of variances. Requires updates to ordinances in participating jurisdictions.	Bartow County, Gordon County	Proposed	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	
Etowah Habitat Conservation Plan	US Fish and Wildlife Service, Bartow	For those jurisdictions in the Metropolitan North Georgia Water Planning District,	Bartow County, Gordon County		Compliant with or exceeds	

Conservation	County, Gordon	changes made to the district's Model			Metro N. GA	
Subdivision Ordinance	County	Conservation Subdivision Ordinance include requirement of site map analysis for all			District model ord, 12/07/05	
Ordinarice		developments with open space plans,			010. 12/07/03	
		instruments of permanent protection, and a				
		four-step design process specified; and				
		changes to primary conservation sites to be				
		included in open space requirements including 100-year floodplain, 75-foot stream buffers,				
		25%-or-greater slopes, wetlands, endangered				
		species habitats, and archeological sites.				
		Requires updates to ordinances in				
		participating jurisdictions. Places emphasis on				
		protecting stream buffers and significant hydrological features				
Etowah Habitat	US Fish and Wildlife	Road Crossings Technical Committee is in the	Bartow County,		In committee	
Conservation Plan	Service, Bartow	process of developing design guidelines for	Gordon County			
Conservation Road Crossing and	County, Gordon County	road crossings of stream and stream culverts to alleviate habitat concerns that pipe culverts				
Culvert Design	County	limit fish movement in stream				
Guidelines						
Etowah Habitat	US Fish and Wildlife	Utility Crossings Technical Committee is in the	Bartow County,		In committee	
Conservation Plan	Service, Bartow	process of developing design guidelines for	Gordon County			
Conservation Utility Line	County, Gordon County	utility stream crossings to reduce sedimentation and other habitat concerns				
Crossing and	County	resulting from erosion of land disturbed by				
Construction		utility activities				
Recommendations			NEDA: 6 I			
		Volunteer training program for construction	NERA is funded by donations,			
Get the Dirt Out	New Echota River	site inspection, identification of failure to use	grants from	Ongoing	2004	Moderate
	Alliance	BMPs in construction activities	foundations, and			
	_		membership			
Storm drain stenciling	Bartow County	County ordinance requiring stenciling of storm drains by developers for new housing		Enforced	2004	
requirement		developments.				
Storm drain	Keep Bartow Beautiful	Volunteers stencil storm water drains in older		Voluntary	2004	
stenciling	·	residential developments		,		
Georgia No-Till	Limestone Valley	Custodians of no-till equipment which reduces	LIODA NIDOG	On main m		1/2
Assistance	RC&D	disturbance of topsoil when planting to reduce erosion and associated sedimentation	USDA NRCS	Ongoing		Very
	1	Program that funds projects where sealant				
Georgia Better Back Roads	Limestone Valley RC&D	treatment applied to dirt roads reduces	USDA NRCS	Ongoing		Very
		erosion and silt build-up.				-
Stream Buffer	Bartow County,	Expand buffer ordinance to exceed State	General Fund	Recommended		May vary
Ordinances and	Gordon County	requirements by including stream buffer		2006		

Installation and Maintenance	Building, Planning, and Development	installation and maintenance requirements at recommended widths			
Stormwater Best Management Practices	Gordon County, Bartow County Building, Planning, Development	Implement recommended Best Management Practices to address Biota (Sediment)/ Habitat and other pollutants as detailed in the Phase II MS4 Stormwater Management Plan to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, monitoring and program implementation	General Fund	Recommended 2006	May vary
District-wide Septic System Maintenance	Gordon County, Bartow County Environmental Health, Northwest Georgia Health District	Expand ongoing education and outreach to promote proper maintenance of private septic systems using DVD program	Homeowners with existing septic systems	Recommended 2006	

VII. MONITORING PLAN

The purposes of monitoring are to obtain more data, to determine the sources of pollution, to describe baseline conditions, and to evaluate the effects of management and activities on water quality. Describe any sampling activities or other surveys - active, planned or proposed - and their intended purpose. Reference the development and submission of a Sample Quality and Assurance Plan (SQAP) if monitoring for delisting purposes.

Table 6. MONITORING PLAN

PARAMETER (S) TO BE MONITORED	ORGANIZATION	STATUS (CURRENT, PROPOSED,	TIME F	RAME	PURPOSE (If for delisting, date of SQAP submission)
MONITORED		PLANNED)	START	END	(ii for defisting, date of SQAF Submission)
Total Suspended Solids	EPD, USGS	Current	Every 5 years		Ongoing monitoring for listing, delisting of impaired streams
Watershed Flow and Temperature Data; Continuous Water Quality Monitoring for DO, temperature, conductivity, pH, depth; Water Quality Sampling; carbonaceous and total BOD ₅ (inhibited and uninhibited), DO, temperature, TKN, NH ₃ , NO ₂ -NO ₃ , total phosphorus, orthophosphate, TOC, conductivity, and pH; Chlorophyll A; Special Studies includes reaeration, sediment oxygen demand (SOD), long-term BOD tests, and dye studies.	EPD, USGS	Current	2005-2006		Coosa River Basin Modeling study

VIII. PLANNED OUTREACH FOR IMPLEMENTATION

List and describe outreach activities which will be conducted to support this plan and the implementation of it.

Table 7. PLANNED OUTREACH

RESPONSIBILTY	DESCRIPTION	AUDIENCE	DATE
Gordon County Environmental Health	Implement ongoing education and outreach to promote proper maintenance of private septic systems	Homeowners with existing septic systems	Recommended 2006
New Echota River Alliance	Non-point source water education	Third, fourth grades	Yearly
Gordon County, USDA NRCS, Limestone Valley RC&D	Implement education and outreach on stream buffer installation and maintenance	Developers, landowners, school groups	Recommended 2006
Gordon County, County Extension Agent, Limestone Valley RC & D	Implement outreach and education on non-point source pollution through use of video "After the Storm," other materials	Developers, landowners, school groups	Recommended 2006
Gordon County Building, Planning, and Development	Stormwater Best Management Practices to include Public Education and Outreach; Public Participation and Involvement to address Biota (Sediment)/ Habitat	General Public	Recommended 2006
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Volunteers for stream cleanup on River Cleanup Day. Trash cleanup on the Etowah River for this segment at Riverside Park. Riverside Festival.	Volunteers, teenagers from local schools, Keep Bartow Beautiful, Bartow 4-H Club, Mountain District EPD office, Lake Allatoona Corps of Engineers	October 31, 2005
Provide septic system maintenance outreach to Bartow County residents	Bartow County Septic System Outreach Subcommittee	Proposed 1/31/06	
Ken Akins Site Manager Etowah Indian Mounds	Education on historical water quality, river uses, clean-up of Etowah River as part of tour of Etowah Indian Mounds	Approximately 17,000 students per year from area schools	Ongoing, mostly in fall and spring school terms
Bartow Co. Director of Planning and Zoning	Comprehensive stormwater awareness training program	Bartow County Homeowner's Association	Ongoing since July 2004
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Teacher Training for Waste In Place, Project WET (Water Education for Teachers "to facilitate and promote awareness, appreciation, knowledge, and stewardship of water resources," Enviroscape (illustrates non-point source pollution in the classroom using tabletop model)	Teachers, students in grades K-12	Ongoing
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Stormwater-related presentation materials provided to schools	Elementary and Middle schools	Yearly since October 2004
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Develop a speakers' bureau to provide outreach on storm water issues	Local civic groups	Ongoing since July 2004
Bartow County Staff	Develop mechanism to improve "interjurisdictional cooperation on TMDL and Watershed Improvement issues"	City of Cartersville, Paulding County, and Polk County	Proposed
Kathy Floyd Bartow County Extension Agent	Articles on water quality written for local newspaper, ongoing outreach on water quality issues	Bartow 4-H Club, citizens	Ongoing
Rolling Hills Resource Conservation and Development Council	Envirothon, a yearly district and state competition for high school students testing skills and knowledge of aquatics including water quality, and other environmental topics	High School Students	March 2006

Adopt-A-Stream, in conjunction with Coosa River Basin Initiative (CRBI)	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, and visual stream surveys	Individuals, families, school groups, civic clubs, and businesses	Ongoing
Bartow County Board of Tax Assessors	Implement tax relief program for property owners who place conservation easements on all or part of properties, especially for greenspace on Timber lands	Property owners especially those with large timber holdings	Proposed
Bartow Co. Director of Planning and Zoning	Comprehensive stormwater awareness training program	Bartow County Homeowner's Association	Ongoing since July 2004
Janice Granai Park Naturalist, Red Top Mountain State Park	Demonstration rain garden at Red Top Mountain State Park with signage.	Homeowners, Community	Ongoing
Pam Robinson Bartow County Environmental Health	Septic system outreach and education to homeowners using DVDs- has become statewide model for such education	Homeowners	2004
Director of Engineering, Bartow County	Mapping of stormwater drainage outfall areas through out the county. 100% of the county will be mapped in 2006	EPD compliance, MS4 Permit	2006
CRBI	The Coosa River Basin Initiative conducts non-point source pollution education programs for elementary school students in Floyd County through a grant from Temple-Inland. As well, Get the Dirt Out is another project which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin.	Elementary school students	Ongoing
Bartow, Gordon Counties	Complete Center for Watershed Protection's Codes and Ordinances Worksheet	General Public	2006
Bartow, Gordon Counties	Consider Adopting 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for</u> <u>Changing Development Rules in Your Community</u> where applicable	General Public	2007-2008
Bartow, Gordon Counties	Implement education of community using After the Storm non-point source pollution video presentation on public access channels	General Public	Ongoing
Coosa Valley RDC, stakeholders	Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area	All counties, municipalities in Coosa Valley RDC area	2006
Coosa Valley RDC, stakeholders	Will investigate 319 h non-point source pollution grant possibilities regarding funding for development of stormwater management training for municipal employees	All counties, municipalities in Coosa Valley RDC area	2006

	Riparian Buffer Education and Outreach		
Bartow, Gordon Counties	Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in <u>Better Site</u> <u>Design: A Handbook for Changing Development Rules in Your Community</u>	General Public	2007-2008
USDA NRCS/FSA, County Extension Service	Continue education and outreach to local communities through USDA NRCS/FSA, County Extension Service	General Public, Homeowners	Ongoing
Coosa Valley RDC, stakeholders	Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging homeowners to develop, maintain riparian buffers	Homeowners	2006
Coosa Valley RDC, stakeholders	Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention	General Public	2006

IX. MILESTONES/ MEASURES OF PROGESS OF BMPs AND OUTREACH

This table will be used to track and report progress of management measures including BMPs and outreach. Record milestone dates for:

- Accomplishment of management practices or activities outreach activities
- Installation of BMPs

to attain water quality standards. Comment on the effectiveness of the management measure, how much support the measure was given by the community, what was learned, how the measure might be improved in the future, and any other observations made. This table can be "pulled out" of this template and used to report and track progress.

Table 8. MILESTONES

MANAGEMENT MEASURE	RESPONSIBLE	STA		COMMENT				
	ORGANIZATIONS	PROPOSED	INSTALLED					
Get the Dirt Out	New Echota River Alliance	2004	Ongoing					
Georgia No-Till Assistance	Limestone Valley RC&D	Ongoing		Reduces soil erosion from tilled cropland				
Georgia Better Back Roads	Limestone Valley RC&D	Ongoing		Reduces erosion from dirt road surfaces				
Provide septic system maintenance	Bartow County Septic System	Proposed		Will determine best contact and outreach methods. Several				
outreach to Bartow County residents	Outreach Subcommittee	1/31/06		possibilities including mass mailing, or developing a student internship				
Stormwater education	Bartow County	Proposed 12/05		Through Keep Bartow Beautiful, Stormwater Management, will educate children and homeowners through presentations and website				
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Public Education and Outreach								
School System Stormwater Presentations	Keep Bartow Beautiful Coord.	2004	2004-2006					
E & S Training Workshop	Bartow County Dir. Engineering	2004	2004					
Speaker's Bureau	Keep Bartow Beautiful Coord.	2004	Ongoing					
 Stormwater Educational 	Bartow County Dir. Engineering	2005	2006					
Materials	County Engineer/ IT Director	2005	2006					
Stormwater Web PageNewspaper Articles	Bartow County Extension Agent	2005	2006					
Components of Bartow County's NPDES								
Phase II Stormwater Management Plan:								
Public Participation and Involvement								
Storm Drain Stenciling	Keep Bartow Beautiful Coord.	2003	2004	Volunteers conduct storm drain stenciling for older				
River Clean-up	Keep Bartow Beautiful Coord.	2004	2007	developments.				
Components of Bartow County's NPDES								
Phase II Stormwater Management Plan:								
Illicit Discharge Detection and Elimination								
 Storm Sewer Map 	Bartow County	2004	2004-2006					
Ordinance/Regulatory Mech. Figure 1: 1.	Bartow County	2004	2005					
Evaluation	Bartow County Engineer	2005	2005					
Illicit Discharge Detection/Elimination Ordinance	Dartow County Engineer	2000	2003					
Detection/Elimination Ordinance		1	1					

Industry DatabaseDry Weather ScreeningSource Tracing/Removal	Bartow County Engineer Bartow County Engineer Bartow County Engineer	2005 2005 2005	2006-2009 2008 2006	
Proced. Components of Bartow County's NPDES Phase II Stormwater Management Plan: Construction Site Storm Water Runoff				
Control Ordinance Evaluation Litter Control Ordinance Development Plan Review Stormwater Quality Site Inspections Stormwater Quality Violation	Bartow County Engineer Bartow County Engineer Bartow County Engineer Bartow County Engineer/Inspection Bartow County	2004 2005 2005 2005 2005	2006 2006 2006 2006 2006	
Plan Erosion & Sedimentation Certification Citizen Complaint Hotline	Engineer/Inspection Bartow County Engineer Code Enforcement/ County Engineer	2005 2005	2006 2006	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Post-Construction Storm Water Management in New Development and Redevelopment	Engineer			
Ordinance Evaluation Stormwater Management Ordinance	Bartow County Engineer Bartow County Engineer	2004 2005	2005 2005	
 Conservation Subdivision Ordinance 	Bartow County Engineer	2005	2005-2006	
 Adoption of Stormwater Design Manual 	Bartow County Engineer Director- Water & Sewer	2003	2003-2006	
 Countywide Watershed Assessment BMP Mapping Stormwater Management 	County Engineer Road Dept. Director/ Co. Engineer County Engineer	2005 2005	2005-2006 2005	
Facility Inspection & Maintenance Program New Stormwater Management Facility Water Quality Assessment	County Engineer	2005	2005	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Pollution Prevention and Good				
Housekeeping • County Fleet Maintenance Fluids Recycling	Solid Waste Director	2004	2004-2006	

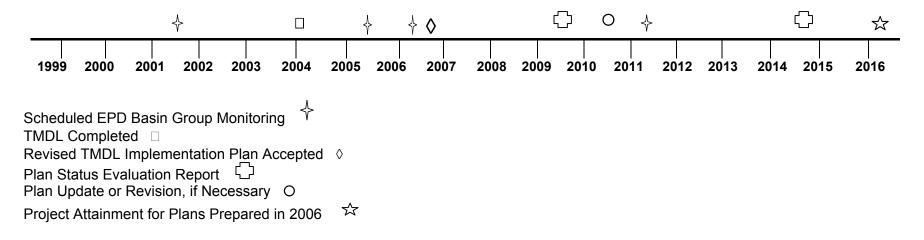
Employee Hazardous Materials Training	County Administrator/ Director, Water & Sewer	2004	2004-2008	
Roadside Cleanup	Solid Waste Director	2004	2005	
Evaluation, Implementation of	Director, Water & Sewer	2005	2006	
Stormwater Pollution Prevention	Director, water a cewer	2000	2000	
Plans for County Facilities	Keep Bartow Beautiful Coordinator	2005	2005	
Bring One for The Chipper	Solid Waste Director	2003	2003	
 Collection Centers 	Road Dept. Director/ County	2004	2004	
 Existing Pond Water Quality 	Engineer	2005	2005-2007	
Assessment		2005	2005 2000	
 Vacuum and Jet Clean Storm 	Road Dept. Director/ Stormwater	2005	2005-2008	
Structures	Superintendent of O & M	0005	0000	
 Illegal Dumping Control 	Solid Waste Director	2005	2006	
Acquire lands along Etowah River for	Bartow County Greenspace	2004	2004	
greenspace and riparian buffer	Committee			
preservation in County				
Workshop on proper maintenance of	Keep Bartow Beautiful Coordinator	2006	2006	
septic systems for Allatoona Community	The part of the pa			
Association homeowners				
Metro North Georgia Water Planning	Bartow County	2005	2005	
District Model Storm Water Management	Bartow County	2000	2000	
Ordinances: Post Development Storm				
Water Management for New				
Development and Redevelopment				
Metro North Georgia Water Planning	Bartow County	2005	2005	
District Model Storm Water Management	Bartow County	2005	2005	
Ordinances: Conservation Subdivision/				
Open Space Development	D. I. O. I	0005	0005	
Metro North Georgia Water Planning	Bartow County	2005	2005	
District Model Storm Water Management				
Ordinances: Illicit Discharge and Illegal				
Connection Ordinance				
Metro North Georgia Water Planning	Bartow County	2005	2005	
District Model Storm Water Management				
Ordinances: Litter Control Ordinance				
Metro North Georgia Water Planning	Bartow County	2005	2005	
District Model Storm Water Management				
Ordinances: Stream Buffer Protection				
Ordinance				
Stormwater Management Education and				
Outreach				
 Complete Center for Watershed 				
Protection's Codes and Ordinances	Bartow, Gordon Counties	Summer 2006		
Worksheet				
			<u> </u>	

•	Consider Adopting 22 Model Development Principles as discussed	Bartow, Gordon Counties	2007-2008	
	in Better Site Design: A Handbook for Changing Development Rules in Your Community where applicable			
•	Implement education of community using After the Storm non-point source pollution video presentation on public access channels	Bartow, Gordon Counties	Ongoing	
•	Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area	Coosa Valley RDC, stakeholders	2006	
•	Will investigate 319 h non-point source pollution grant possibilities regarding funding for development of stormwater management training for municipal employees	Coosa Valley RDC, stakeholders	2006	Application deadline May 31, 2006. Yearly deadline.
	tic System Maintenance Education Outreach			
•	Investigate expansion of district-wide outreach component to homeowners to include those with existing systems	Coosa Valley RDC, stakeholders	2006	
•	Will investigate 319 h non-point source pollution grant possibilities regarding septic system maintenance and repair project	Coosa Valley RDC, stakeholders	2006	Application deadline May 31, 2006. Yearly deadline.
Ripa	arian Buffer Education and Outreach			
•	Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u>	Bartow, Gordon Counties	2007-2008	
•	Continue education and outreach to local communities through USDA NRCS/FSA, County Extension	USDA NRCS/FSA, County Extension Service	Ongoing	

Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging homeowners to develop, maintain riparian buffers	Coosa Valley RDC, stakeholders	2006	Application deadline May 31, 2006. Yearly deadline.
Investigate Funding Sources • Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention	Coosa Valley RDC, stakeholders	2006	Application deadline May 31, 2006. Yearly deadline.

PROJECTED ATTAINMENT DATE

The projected date to attain and maintain water quality standards in this watershed is 10 years from acceptance of the TMDL Implementation Plan by Georgia EPD.



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Date Submitted to EPD: 04/22/06					Revision: 01			

The preparation of this report was financed in part through a grant from the U.S. Environmental Protection Agency under the provisions of Section 106 of the Federal Water Pollution Control Act, as amended.

APPENDIX A.

STAKEHOLDERS

List the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Machelle Simmons, USDA Natural Resource Conservation Service	717 South Wall Street Suite 1	Calhoun	GA	30701	(706) 629-2582 X 3	Machelle.simmons@ga.usda.gov
Kelly Cornwell, City of Calhoun Utilities	P.O. Box 248	Calhoun	GA	30703	(706) 629-4701	kcornwell@calnet-ga.net
Jerry Crawford, City of Calhoun Water and Sewer	P.O. Box 248	Calhoun	GA	30703	(706) 602- 6078	jcrawford@calnet-ga.net
Clayton Jones New Echota River Alliance	723 Culpepper Road SW	Calhoun	GA	30701	(770) 548-0263	claytonjones@coosa.org
Sam Payne Gordon County Farm Bureau	2259 U.S. 41	Calhoun	GA	30701	(706) 629-3144	paynefrm@bellsouth.net
Bob Peoples Peoples and Quayle, Inc						
Christy Blair Gordon County Environmental Health	318 North River Street	Calhoun	GA	30703	(706) 624-1440	chblair@dhr.state.ga.us
Tom Burgess, Dir. Gordon County Building, Planning, Development	Office in Gordon Co. Annex Bldg. P. O. Box 580	Calhoun	GA	30703-0580	(706) 629-0505	tburgess@gordoncounty.org
Kathy Cox Gordon County Ordinance Enforcement Officer	Office in Gordon Co. Annex Bldg. P. O. Box 580	Calhoun	GA	30703-0580	(706) 629-4253	kcox@gordoncounty.org
Doug Cabe Limestone Valley RC & D	125 Red Bud Road NE, Suite 7	Calhoun	GA	30701	(706) 625-7044	dec@lvrcd.org
Steve Moraitakis Gordon County Extension Agent	P.O. Box 95	Calhoun	GA	30703-0095	(706) 629-8685	smorait@uga.edu
Ross Wilburn City Engineer, City of Calhoun	P. O. Box 248	Calhoun	GA	30701	(706) 602-6024	rwilburn@calnet-ga.net
Rodney Buckingham Pickens County Planning and Development		Ellijay	GA		(706) 253-8850	Pickenscoplan-develop@ellijay.com

Bill Davidson USDA/NRCS	717 South Wall Street Suite 1	Calhoun	GA	30701	(706) 629-2582 X 3	
Marilyn Montgomery Farm Bureau	91 Cunningham Rd. SW	Calhoun	GA	30701		
Bill McMullen Georgia Power	Bin 76440 P.O. Box 200127	Cartersville	GA	30120		
Cathy Harrison City Administrator	P. O. Box 248	Calhoun	GA	30703-0248		
Roy Davis Gordon County Board of Commissioners	P.O. Box 580	Calhoun	GA	30703-0580		
Randall Dowling County Administrator	P.O. Box 580	Calhoun	GA	30703-0580		
Jimmy Phillips President, Gordon County Chamber of Commerce	300 South Wall Street	Calhoun	GA	30703		

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APPENDIX B.

UPDATES TO THIS PLAN

Describe any updates made to this plan. Include the date, section or table updated, and a summary of what was changed and why.

APPENDIX C.

HUC-10 0315010206 Salacoa Creek Field Survey Photographs and Watershed Map

Field Survey Photographs

1. HUC-10 0315010206 Salacoa Creek at Quarry Road: Location of Bell Stone Quarry.



2. HUC-10 0315010206 Salacoa Creek at Quarry Road: Quarry visible on hill.

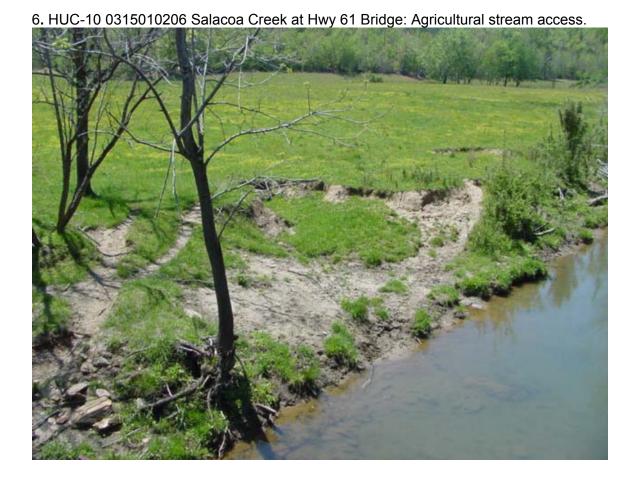




4. HUC-10 0315010206 Salacoa Creek at Bridge Road: Clear-cut hillside.







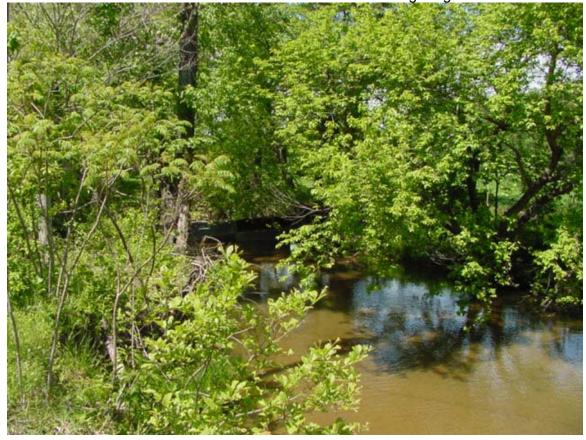
7. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 1 of 3.



8. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 2 of 3.



9. HUC-10 0315010206 Salacoa Creek at Salacoa Road Bridge: Agricultural Stream access 3 of 3.



HUC-10 0315010206 Salacoa Creek

Watershed Map

